STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
201 W. Preston Street, Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – John M. Colmers, Secretary

Office of Preparedness & Response
Sherry Adams, R.N., C.P.M, Director
Isaac P. Ajit, M.D., M.P.H., Deputy Director

June 20, 2008
Public Health & Emergency Preparedness Bulletin: # 2008:24
Reporting for the week ending 06/14/08 (MMWR Week #24)

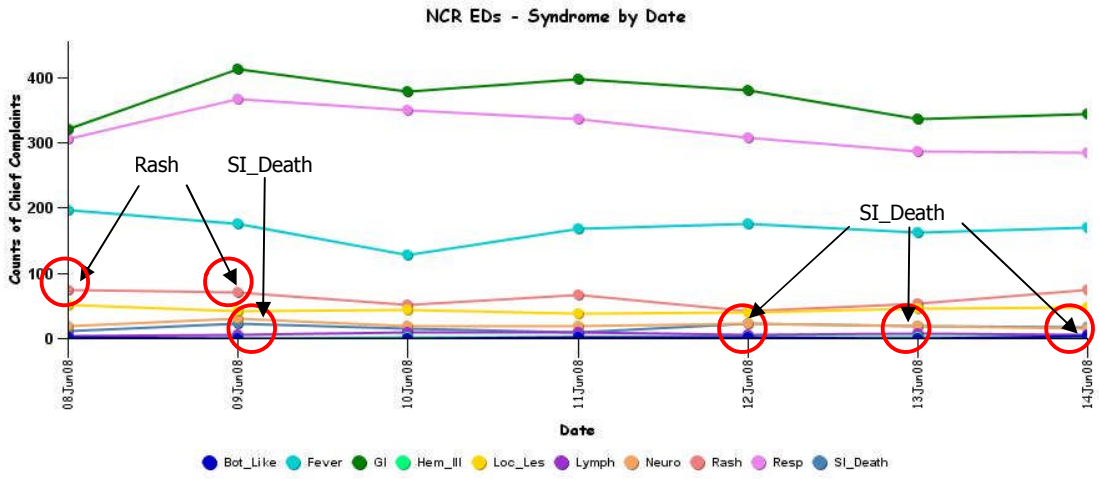
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

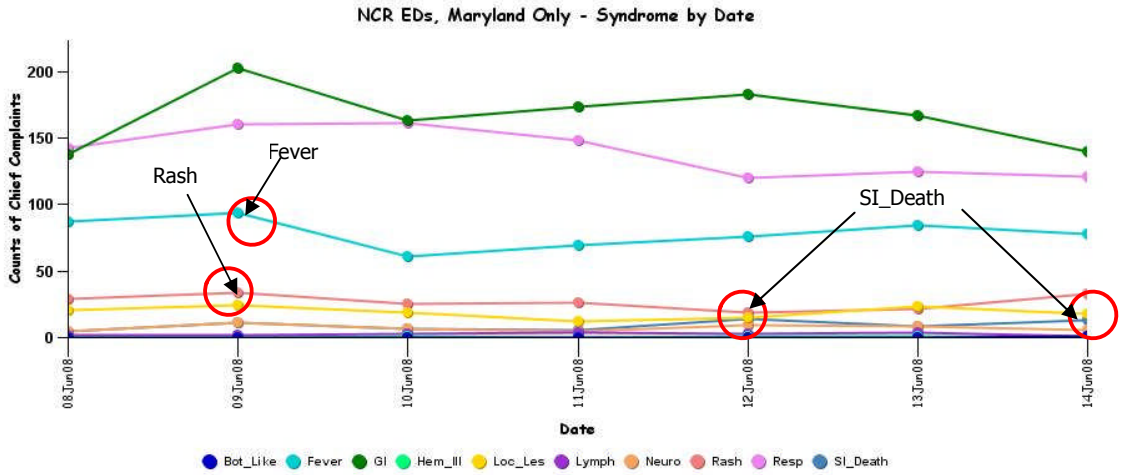
SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts only. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

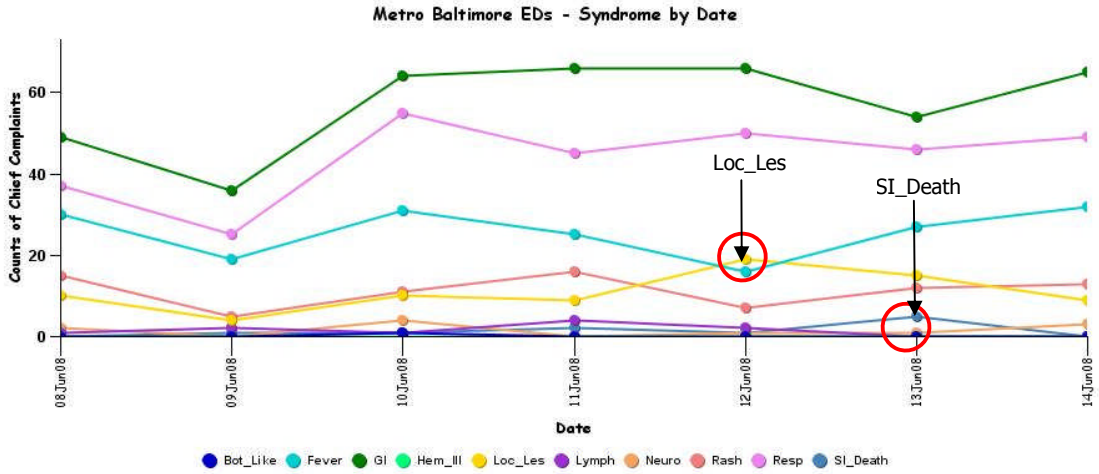
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.



* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system

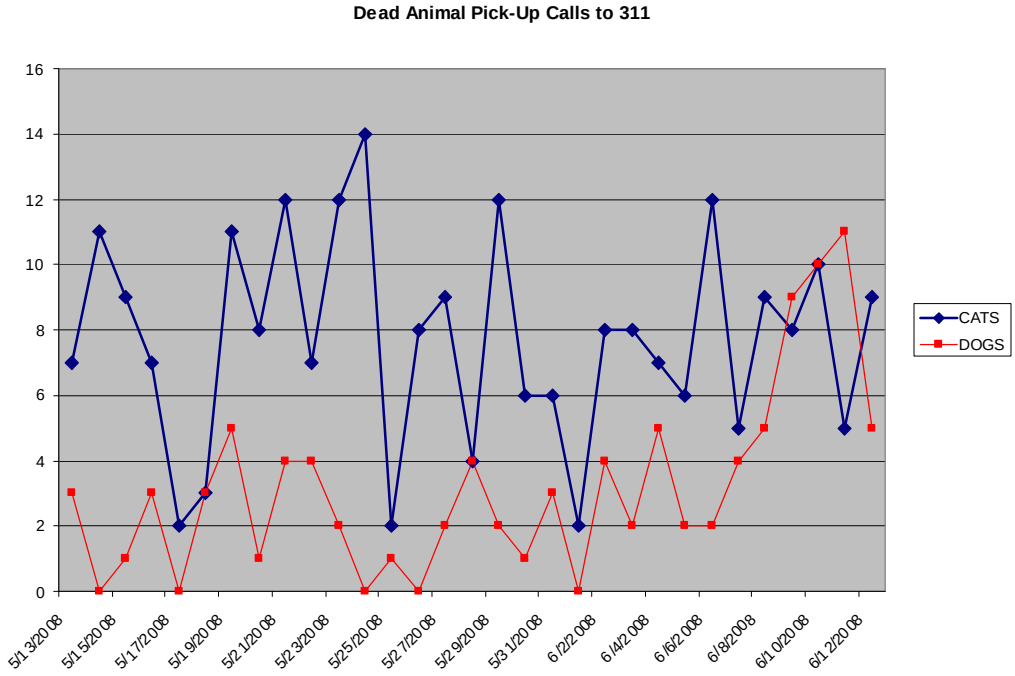


* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system



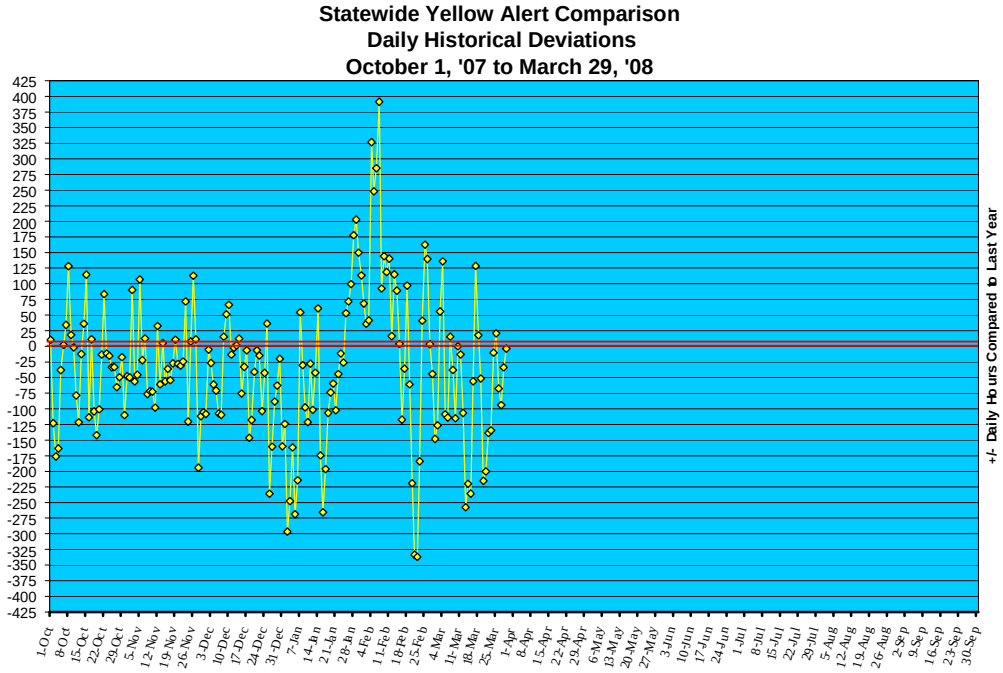
* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/06.
*Note: No new data available at this time.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in May 2008 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (June 8 – 14, 2008):	15	1
Prior week (June 1 – 7, 2008):	10	3
Week#24, 2007 (Jun 9 - 15, 2007):	13	1

OUTBREAKS: 5 outbreaks were reported to DHMH during MMWR Week 24 (June 8-June 14, 2008):

2 Foodborne Gastroenteritis outbreaks
1 outbreak of FOODBORNE GASTROENTERITIS associated with a Hotel
1 outbreak of FOODBORNE GASTROENTERITIS associated with a School

1 Respiratory illness outbreak
1 outbreak of RESPIRATORY ILLNESS associated with a Nursing Home

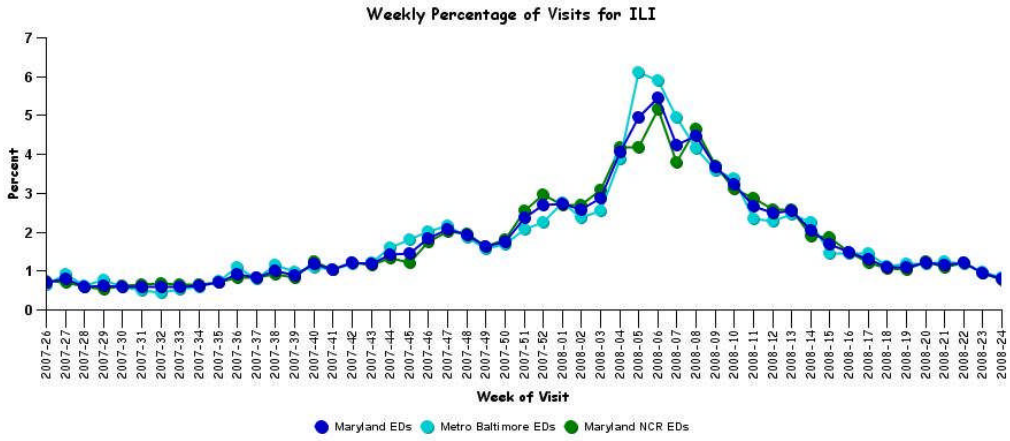
2 Rash illness outbreaks
1 outbreak of RASH ILLNESS associated with a Nursing Home
1 outbreak of RASH ILLNESS associated with a Hospital

MARYLAND SEASONAL FLU STATUS:

Seasonal Influenza reporting occurs October through May.

SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS:

Graph shows the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. This graph does not represent confirmed influenza.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO Pandemic Influenza Phase: Phase 3/4: No or very little human-to-human transmission/Small clusters with limited human-to-human transmission, suggesting that the virus is not well adapted to humans

US Pandemic Influenza Stage: Stage 0/1: New domestic animal outbreak in at-risk country/Suspected human outbreak overseas

*More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://bioterrorism.dhmh.state.md.us/flu.htm

WHO update: As of May 28, 2008, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 383, of which 241 have been fatal. Thus, the case fatality rate for human H5N1 is about 63%.

AVIAN INFLUENZA, SUSPECTED SMUGGLING (Hong Kong): 10 Jun 2008, Smuggled chickens may have been the cause of the latest outbreak of the bird flu virus. The suspicions arose after the farms that supplied the 3 stalls at the center of the H5N1 outbreak cleared preliminary checks. Customs officials said on Jun 9 they are treating reports of smuggling seriously. Officers also said they would be stepping up intelligence-gathering operations to prevent underground poultry shipments. "We will collaborate with the Agriculture, Fisheries, and Conservation Department (AFCD) and the Food and Environmental Hygiene Department (FEHD) in investigating the reported problem of smuggling at both the wholesale and retail levels," said Tam Yiu-keung, acting assistant commissioner of intelligence and investigation at the Customs and Excise Department. AFCD assistant director of inspection and quarantine Thomas Sit Hon-chung added: "Invoices show the chickens that tested positive came from 3 local and 6 mainland registered farms. But checks at the 3 local farms showed no problems, and mainland inspection and quarantine authorities have also confirmed there are no problems with the 6 farms on their side." Sit said more than 70 samples taken from farms, wholesale, and retail markets all tested negative for H5N1. More tests will be conducted at local and mainland farms and the results will be out in a few days. The FEHD has sent inspectors to mainland farms and processing plants. Hong Kong Poultry Wholesalers' and Retailers' Association chairman Steven Wong Wai-chuen said he had heard that chilled chickens were being smuggled in by sea and land in air-conditioned carriers from Shenzhen.

AVIAN INFLUENZA (North Korea): 14 Jun 2008, Bird flu has broken out near a North Korean military base in the first reported case of the disease in the country since 2005, a South Korean aid group said on Jun 11. The outbreak occurred last week near an air force base in Jongpyong county in South Hamgyong province, north east of the capital Pyongyang, according to the Seoul-based private aid group Good Friends; it cited the North's quarantine authorities. The case was first reported Jun 3, when several birds were found dead in a small mountain area near the military base, said the aid agency. There were no details on whether it was the H5N1 virus, which can be deadly to humans. South Korea's Unification Ministry said it could not immediately confirm the report. Separately, dozens of magpies were found dead inside a political prison camp in Hwasong in North Hamgyong province, said Good Friends. A prison camp official's 5 year old child subsequently suffered a high fever and died, the group said. There was no way to confirm if the child caught a virus from the birds or to know what killed the child. The Buddhist-affiliated group that sends food and other aid to the North also said 2 prisoners showed similar symptoms and 3 others were subsequently diagnosed with an unidentified virus. Good Friends has previously provided information on the North that has proven correct but does not provide information on its sources, out of fear they could face retribution. The case prompted the authorities to quarantine people inside the prison camp and launched preventive measures, but they failed to identify the disease, said the aid agency. It had no details of measures taken. The North's outbreak came after South Korea slaughtered 8.46 million chickens, ducks and other poultry in recent months to stem the spread of bird flu. Bird flu was last known to have hit North Korea in 2005, leading to the killing of about 210,000 birds.

AVIAN INFLUENZA (Hong Kong): 14 Jun 2008, Health workers plan to slaughter all live poultry in Hong Kong's street markets after detecting the dangerous H5N1 bird flu virus, officials said on Jun 11. The action comes after tests showed birds infected in 4 markets, said Cheung Siu-hing, director for agriculture, fisheries and conservation. It was unclear how many birds would be killed, but markets were selling around 3500 birds as of Tuesday night, Cheung said. The move affects all retail poultry vendors in the territory. The virus has not been detected in samples from local chicken farms and distribution centers, officials said. Nor have any people been sickened in the latest outbreak. "We're closely monitoring the possibility of human cases and we will remain alert," said Thomas Tsang, head of the government's health monitoring agency. Health workers killed 2700 poultry on Jun 7 in a market after routine testing showed 5 chickens were infected with the virus. The government also temporarily banned supplies from all live poultry from mainland China and local farms. Hong Kong's last major bird flu outbreak was in 1997, when the H5N1 strain jumped to humans and killed 6 people. That prompted the government to slaughter the entire poultry population of about 1.5 million birds.

NATIONAL DISEASE REPORTS:

HANTAVIRUS (Colorado): 09 Jun 2008, Public health officials are urging residents to take precautions to avoid hantavirus infection. Previously, 2 cases of hantavirus infection were reported in Kiowa County in February and Fremont

County in early May. The patient in Kiowa County died. "This year's heavy snowpack has provided moisture for ample vegetation that provides food for rodents, and often results in a large jump in both mouse populations and infection rates," said John Pape, a Colorado Department of Public Health and Environment epidemiologist who specializes in animal-related diseases. Hantavirus is a serious respiratory disease carried by deer mice, which are common to rural areas throughout the state. The virus can infect humans who inhale dirt and dust contaminated with deer mice urine and feces when working in rodent-infested structures. "May, June, and July are the months when most of our human cases occur," Pape said. Before cleaning rodent-infested structures, health department officials recommend ventilating the area for 30 to 60 minutes. Watering down areas where dust, dirt, and mouse droppings have accumulated with a bleach and water mixture is also suggested. Hantavirus infection, which is fatal in nearly half of the cases, begins with high fever, severe body aches, headache, and vomiting. Within 1-5 days, the illness quickly progresses to respiratory distress, including a dry cough and difficulty breathing when the lungs fill with fluid. The symptoms begin from 1-6 weeks after exposure. There is no effective treatment for hantavirus infection, said Pape. "When hantavirus infection is suspected or confirmed, early admission to a hospital where careful monitoring, treatment of symptoms, and supportive therapy can be provided is most important," he said. "If you become ill with these symptoms, it is important to tell your physician about possible exposures to deer mice or rodent-infested environments." (Emerging Infectious Diseases are listed in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

BRUCELLOSIS, BOVINE (Montana): 10 Jun 2008, A sick cow near Yellowstone National Park has Montana governor Brian Schweitzer and cattlemen calling for measures to protect stock and ranchers. The disease is brucellosis. The cow was in Paradise Valley. In May 2008, it tested positive for the disease that causes cows to abort. The case will cause Montana to lose its federal designation as brucellosis-free. What it means is that all of Montana's livestock producers will now be required to test bulls and cows, unspayed and 18 months old or older a month before interstate shipment. Montana cattle ranchers who want to ship or move their stock will have to prove to the USDA that the animals do not have Brucella abortus bacterium, the causative agent of the disease. Montana veterinarian Marty Zaluski said the loss of brucellosis-free status is particularly frustrating given efforts by livestock producers and the industry to mitigate risks and increase disease surveillance. "Producers in the Paradise Valley have been involved and diligent, and they have taken it upon themselves to be proactive in regard to managing the risk of brucellosis transmission," Zaluski said. "In this particular case, the owner did everything right. The cow had been vaccinated twice and was part of a herd management plan." Officials will test to track the cause of the disease in the Paradise Valley animal. The last case was linked to elk, Zaluski said. The soonest the state can apply to regain class free status is a year from the date the last positive animal was killed, which will be May 27, 2009. All other animals in the herd where the sick cow was found have tested negative for brucellosis. Herds with links to the herd where the infected cow was found will be placed under quarantine unless, or until, they are whole-herd tested.

TULAREMIA, PNEUMONIC (New York City): 12 June 2008, The New York City DOHMH is investigating a laboratory-confirmed case of pneumonic tularemia in a Brooklyn resident. The patient presented to the hospital in early June 2008 with a one-week history of fever, headache, sweats, left sided pleuritic chest pain, and shortness of breath. Pleural fluid culture yielded small, slow-growing Gram negative bacteria that were referred to the New York City Public Health Laboratory for identification. The organism was confirmed as Francisella tularensis. The patient reported camping in Gateway National Recreation Area in Brooklyn 4 days prior to the onset of his symptoms. Tularemia is rare in New York City; however, cases have been reported in all New York City boroughs except for the Bronx. Since 1965, there have been 15 other reported cases, with the last case occurring in 2007. In the USA, about 100-200 cases are reported annually, with most occurring in the south, central, and western states; the case fatality rate is about 1.0%. Tularemia is caused by F. tularensis, a small, non-motile, Gram negative intracellular coccobacillus. Humans can become incidentally infected through diverse environmental exposures: bites by infected ticks and deerflies; contact with infectious animal tissues or fluids; direct contact with or ingestion of contaminated food, water, or soil; and inhalation of infective aerosols. It is highly infectious, with as few as 10 organisms needed to cause disease. Humans can develop severe and sometimes fatal illness, but do not transmit the disease to others. The typical incubation period is 3 to 5 days, with a range of one to 14 days. (Tularemia is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS:

ANTHRAX, HUMAN, BOVINE (India): 08 Jun 2008, At least one person died of anthrax, and several others continue to suffer from the disease at the Community Health Centre (CHC) of Kutra block in Sundargarh district. Sources said an adult male (35) being treated at the CHC with symptoms of anthrax was declared dead on Jun 4; 4 of the 11 persons being treated for the disease have been shifted to Sundargarh Government Hospital on Jun 5 after marked deterioration in their health. Sources at CHC said the symptoms of the disease were similar to those of anthrax. The victim and the other patients had consumed beef on May 25 night during a community feast at Jhirpani village of Kiringsira grampanchayat of Kutra block. The next day, one among them died of a mysterious disease. However, nobody then had taken note of it, and the reason of death could not be confirmed. Subsequently, others who consumed the meat began to fall sick with symptoms of swelling stomach and high fever. They were rushed to the CHC and treated for anthrax. Village sources claimed some cattle are also suffering from the disease, but no veterinary or medical team visited the village. Repeated efforts to contact Sundargarh District Medical Officer Dr. D. Muduli failed, as his mobile phone was switched off. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

CRIMEAN-CONGO HEMORRHAGIC FEVER (Turkey): 11 Jun 2008, A woman from the central Anatolian province of Yozgat died on May 21 at an Ankara hospital where she was being treated for Crimean-Congo hemorrhagic fever, a viral disease contracted from a tick bite which can be fatal. Cekerek District Governor Ahmet Odabaui talked to the Anatolia news agency about the incident, saying that the 28 year old woman, who was living in the Bayindirhoyuk village of Cekerek, was sent to Yozgat State Hospital last week after she was bitten by a tick. She was later transferred to Ankara Numune Hospital when her condition deteriorated and died at this hospital. Meanwhile, a man from northern Samsun province died on Jun 4 at a hospital where he was being treated for CCHF. The man, who was living in the Armutlu village of Asarcik district, was sent to Ondokuz Mayis University Hospital last week after he was bitten by a tick while working in his garden. His death is the 17th fatal case of CCHF in four Turkish provinces, namely Samsun, Corum, Tokat and Amasya, this year. The number of tick bite cases increase as the weather gets warmer and people engage in more activities outdoors. In the past 5 years, 94 people have died in Turkey from CCHF. (Viral hemorrhagic fevers are listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, EQUINE (Kyrgyzstan): 11 Jun 2008, The third case of confirmed human anthrax has been registered in Osh region of Kyrgyzstan. This information came from the director of Republican Center for Particularly Dangerous Infections. There was information about 8 cases of anthrax admitted to the hospitals and in 5 of them the infection has not been confirmed yet. The cases are with skin lesions, which are treated with grater success, the representative of the Ministry of Health said. The doctors say that the infections are due to consumption of contaminated beef. The anthrax outbreak in south Kyrgyzstan was reported by health officials in the Central Asian state on Jun 9. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

LASSA FEVER (Nigeria): 11 Jun 2008, Within the last 8-12 weeks, cases of Lassa fever in the endemic states of Edo, Plateau, Lagos, Ogun, Nasarawa, Taraba, Borno, and Anambra have reoccurred, with 8 fatalities. Minister of health, Professor Adenike Grange, who disclosed the cases on Jun 8 in Abuja, said the World Health Organization (WHO) and a team of health supervisors from the ministry confirmed these outbreaks. Grange disclosed that an on-the-spot assessment of Zaria, Kaduna State, which is one of the most affected areas, confirmed that the situation needed the urgent intervention of the federal government. According to her, a team of experts had already been dispatched to the endemic areas to determine the extent of the outbreaks, as well as to initiate preventive and containment measures in affected communities, and to report to the ministry. (Viral hemorrhagic fevers are listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS, SEROTYPE ENTERITIDIS, CHILD (Estonia): 13 Jun 2008, The Estonian Health Protection Inspectorate (HPI) is investigating an outbreak of salmonellosis in a kindergarten in Harju County. As of May 28, 94 salmonellosis cases had been reported, including 85 children and 9 employees of the kindergarten. Of the 94 cases, 71 were laboratory-confirmed for Salmonella enterica serotype Enteritidis and 23 were shown to be epidemiologically linked. Salmonellosis is the most common foodborne disease in Estonia. The epidemiological investigation of the current outbreak was launched on May 12, when the HPI received information from West Tallinn Infectious Diseases Hospital that 2 children from a kindergarten in Harju County had been admitted to hospital with symptoms of gastroenteritis. In one child, Salmonella group D was isolated. An outbreak investigation team, set up jointly with the Veterinary and Food Board (VFB) Harju County Service, conducted an inspection of the kindergarten. The retrospective cohort study is still ongoing and the analysis of the data collected has not yet been completed. The earliest date of onset of disease was May 8, the latest May 19. The cases notified on May 8, 9, and 10 were primary cases related to consumption of a suspected meal; the cases notified on May 11, 12, 13, 14, and 19 were secondary S. Enteritidis-positive cases infected by environmental contact. S. Enteritidis was identified in the frozen sample of a whole hen from Lithuania. The human and food isolates were sent for phage typing and genotyping to the National Public Health Institute in Finland. The laboratory investigation is still ongoing. The preliminary results of the cohort study indicate that the outbreak was foodborne and the probable vehicle of infection was a chicken soup that was served for lunch on May 7. Cross-contamination during food handling is also possible: ingredients of the soup with poultry meat could have been prepared and processed with contaminated utensils or had contact with contaminated working surfaces. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

CRIMEAN-CONGO HEMORRHAGIC FEVER (Kazakhstan): 13 June 2008, The news agency 'Kazakhstan Today' has reported that the press service of the Ministry of Emergency Situations of the Republic of Kazakhstan released information concerning a case of Crimean-Congo hemorrhagic fever (CCHF) in Kizilordinskaya oblast. According to the report a 59 year old man from the village of Birlik was admitted to the regional hospital on Jun 8 on suspicion of having contracted CCHF as the result of a tick bite while shearing sheep. The diagnosis was confirmed 2 days later and the condition of the patient remains serious. Measures are being undertaken to forestall any further cases. (Viral hemorrhagic fevers are listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

CRIMEAN-CONGO HEMORRHAGIC FEVER (Russia): 13 Jun 2008, A Dagestan woman has been registered as a case of Crimean-Congo hemorrhagic fever (CCHF). According to the head of the local health authority, Zoya Magometowa, the woman was bitten by a tick in her abdominal region while milking a cow on Apr 16. After the bite she developed a fever but did not seek medical help immediately. Then, 2 days later when her condition deteriorated, she sought medical help. According to Magometowa, the initial tests for CCHF were negative and the diagnosis was only confirmed by a second test. She added that the course of the patient's disease had been mild and the woman has now been discharged from hospital. (Viral hemorrhagic fevers are listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, LIVESTOCK (India): 14 Jun 2008, A minor anthrax outbreak, which has killed 11 animals so far, struck Jaligere village in Doddaballapur taluk. Livestock owners said the deadly bacteria have killed the animals. Blood tests were done at the Doddaballapur veterinary hospital and the results confirmed the presence of the disease. Experts said that the disease might be due to bacterial growth in the area. One of the precautions being taken in the village is to bury dead animals deep inside the soil, covered with heaps of mud and limestone. Farmers have been asked to contact veterinary officials if they found unnatural livestock deaths. Vaccination campaigns are being taken out in 4 taluks of Doddaballapur district. Veterinary experts said the disease is deadly and farmers must provide accurate and quick information to the experts. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST:

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://bioterrorism.dhmh.state.md.us/

Investigation of Outbreak of Infections Caused by *Salmonella* Saintpaul
Updated information on the recent outbreak of human Salmonella infections associated with consumption of raw tomatoes. (http://www.cdc.gov/salmonella/saintpaul/)

****

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

Heather N. Brown, MPH
Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
201 W. Preston Street, 3rd Floor
Baltimore, MD 21201
Office: 410-767-6745
Fax: 410-333-5000
Email: HBrown@dhmh.state.md.us